

## Complete Summary

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### GUIDELINE TITLE

Guideline on pulp therapy for primary and immature permanent teeth.

### BIBLIOGRAPHIC SOURCE(S)

American Academy of Pediatric Dentistry (AAPD). Guideline on pulp therapy for primary and immature permanent teeth. Chicago (IL): American Academy of Pediatric Dentistry (AAPD); 2009. 8 p. [107 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Pediatric Dentistry. Guideline on pulp therapy for primary and young permanent teeth. Chicago (IL): American Academy of Pediatric Dentistry; 2004. 5 p. [28 references]

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## SCOPE

### DISEASE/CONDITION(S)

Reversible or irreversible pulpitis or necrosis

### GUIDELINE CATEGORY

Diagnosis  
 Evaluation  
 Management  
 Treatment

## **CLINICAL SPECIALTY**

Dentistry  
Pediatrics

## **INTENDED USERS**

Dentists

## **GUIDELINE OBJECTIVE(S)**

To aid in the diagnosis of pulp health versus pathosis and set forth the indications, objectives, and therapeutic interventions for pulp therapy for primary and immature permanent teeth

## **TARGET POPULATION**

Pediatric patients requiring pulp therapy for primary and/or immature permanent teeth

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Documentation of diagnostic information, treatment, and follow-up in patient's record
2. Use of rubber dam or other isolation
3. Periodic clinical and radiographic assessment
4. Vital pulp therapy
  - Use of a protective liner such as calcium hydroxide, dentin bonding agent, or glass ionomer cement
  - Indirect pulp treatment using:
    - A radiopaque liner such as calcium hydroxide, dentin bonding agent, resin modified glass ionomer, zinc oxide/eugenol, or glass ionomer cement
    - A restoration that seals the tooth from microleakage
  - Direct pulp capping using:
    - A biocompatible radiopaque base such as calcium hydroxide or mineral trioxide aggregate (MTA)
    - A restoration that seals the tooth from microleakage
  - Pulpotomy
    - Treating the radicular pulp tissue surface with Buckley's Solution of formocresol or ferric sulfate or with electrosurgery
    - Filling the coronal pulp chamber with a suitable base
    - Restoring the tooth with a material that seals the tooth from microleakage
  - Partial pulpotomy for carious or traumatic exposures
    - Covering the site with calcium hydroxide or MTA
    - Placing a restoration that seals the tooth from microleakage
5. Nonvital pulp treatment
  - Pulpectomy
    - Debriding, shaping, and filling root canals with a resorbable materials such as nonreinforced zinc oxide-eugenol

- Restoring tooth with a restoration that seals the tooth from microleakage
- Apexification (root end closure)

## **MAJOR OUTCOMES CONSIDERED**

Normal apexogenesis

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

This revision included a new systematic literature search of the MEDLINE/PubMed electronic data base using the following parameters:

- Terms: pulpotomy, pulpectomy, indirect pulp treatment, stepwise excavation, pulp therapy, pulp capping, pulp exposure, bases, liners, calcium hydroxide, formocresol, ferric sulfate, glutaraldehyde pulpotomies, glass ionomer, mineral trioxide aggregate (MTA), bacterial microleakage under restorations, dentin bonding agents, resin modifies glass ionomers (RMGI 's), and endodontic irrigants
- Fields: all fields
- Limits: within the last 10 years, humans, English, and clinical trials

Papers for review were chosen from the resultant lists and from hand searches. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion including those from the 2007 joint symposium of the American Association of Pediatric Dentistry (AAPD) and the American Association of Endodontists (AAE) titled "Emerging Science in Pulp Therapy: New Insights into Dilemmas and Controversies" (Chicago, Ill).

### **NUMBER OF SOURCE DOCUMENTS**

Not stated

### **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Expert Consensus (Committee)

### **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The oral health policies and clinical guidelines of the American Academy of Pediatric Dentistry (AAPD) are developed under the direction of the Board of Trustees, utilizing the resources and expertise of its membership operating through the Council on Clinical Affairs (CCA).

Proposals to develop or modify policies and guidelines may originate from 4 sources:

1. The officers or trustees acting at any meeting of the Board of Trustees
2. A council, committee, or task force in its report to the Board of Trustees
3. Any member of the AAPD acting through the Reference Committee hearing of the General Assembly at the Annual Session
4. Officers, trustees, council and committee chairs, or other participants at the AAPD's Annual Strategic Planning Session.

Regardless of the source, proposals are considered carefully, and those deemed sufficiently meritorious by a majority vote of the Board of Trustees are referred to the CCA for development or review/revision.

Once a charge (directive from the Board of Trustees) for development or review/revision of an oral health policy or clinical guideline is sent to the CCA, it is assigned to 1 or more members of the CCA for completion. CCA members are instructed to follow the specified format for a policy or guideline. All oral health policies and clinical guidelines are based on 2 sources of evidence: (1) the scientific literature; and (2) experts in the field. Members may call upon any expert as a consultant to the council to provide expert opinion. The Council on Scientific Affairs provides input as to the scientific validity of a policy or guideline.

The CCA meets on an interim basis (midwinter) to discuss proposed oral health policies and clinical guidelines. Each new or reviewed/revised policy and guideline is reviewed, discussed, and confirmed by the entire council.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Once developed by the Council on Clinical Affairs (CCA), the proposed policy or guideline is submitted for the consideration of the Board of Trustees. While the board may request revision, in which case it is returned to the council for modification, once accepted by majority vote of the board, it is referred for Reference Committee hearing at the upcoming Annual Session. At the Reference Committee hearing, the membership may provide comment or suggestion for alteration of the document before presentation to the General Assembly. The final document then is presented for ratification by a majority vote of the membership present and voting at the General Assembly. If accepted by the General Assembly, either as proposed or as amended by that body, the document then becomes the official American Academy of Pediatric Dentistry (AAPD) oral health policy or clinical guideline for publication in the AAPD's Reference Manual and on the AAPD's Web site.

## **RECOMMENDATIONS**

### **MAJOR RECOMMENDATIONS**

All relevant diagnostic information, treatment, and treatment follow-up shall be documented in the patient's record.

Any planned treatment should include consideration of:

- The patient's medical history
- The value of each involved tooth in relation to the child's overall development
- Alternatives to pulp treatment
- Restorability of the tooth

When the infectious process cannot be arrested by the treatment methods included in this section, bony support cannot be regained, inadequate tooth structure remains for a restoration, or excessive pathologic root resorption exists, extraction should be considered.

It is recommended that all pulp therapy be performed with rubber dam or other equally effective isolation to minimize bacterial contamination of the treatment site.

This guideline is intended to recommend the best currently-available clinical care for pulp treatment, but the American Academy of Pediatric Dentistry

(AAPD) encourages additional research for consistently successful and predictable techniques using biologically-compatible medicaments for vital and nonvital primary and immature permanent teeth. Pulp therapy requires periodic clinical and radiographic assessment of the treated tooth and the supporting structures. Post-operative clinical assessment generally should be performed every 6 months and could occur as part of a patient's periodic comprehensive oral examinations. Patients treated for an acute dental infection initially may require more frequent clinical reevaluation. A radiograph of a primary tooth pulpectomy should be obtained immediately following the procedure to document the quality of the fill and to help determine the tooth's prognosis. This image also would serve as a comparative baseline for future films (the type and frequency of which are at the clinician's discretion). Radiographic evaluation of primary tooth pulpotomies should occur at least annually because the success rate of pulpotomies diminishes over time. Since failure of a primary molar pulpotomy may be evidenced in the furcation, posterior tooth pulpotomies should be monitored by radiographs that clearly demonstrate the interradicular area. Bitewing radiographs obtained as part of the patient's periodic comprehensive examinations may suffice. If a bitewing radiograph does not display the interradicular area, a periapical image is indicated. Pulp therapy for immature permanent teeth should be reevaluate radiographically 6 and 12 months after treatment and then periodically at the discretion of the clinician. For any tooth that has undergone pulpal therapy, clinical signs and/or symptoms may prompt a clinician to select a more frequent periodicity of reassessment.

Apexification, reimplantation of avulsions, and placement of prefabricated post and cores are not indicated for primary teeth. For endodontic procedures not included in this section, the AAPD supports the *Guide to Clinical Endodontics*.

## **Primary Teeth**

### **Vital Pulp Therapy for Primary Teeth Diagnosed with a Normal Pulp or Reversible Pulpitis**

#### *Protective Liner*

A protective liner is a thinly-applied liquid placed on the pulpal surface of a deep cavity preparation, covering exposed dentin tubules, to act as a protective barrier between the restorative material or cement and the tooth's pulp. Placement of a thin protective liner such as calcium hydroxide, dentin bonding agent, or glass ionomer cement is at the discretion of the clinician.

- Indications: In a tooth with a normal pulp, when all caries is removed for a restoration, a protective liner may be placed in the deep areas of the preparation to minimize injury to the pulp, promote pulp tissue healing, and/or minimize postoperative sensitivity.
- Objectives: The placement of a liner in a deep area of the preparation is utilized to preserve the tooth's vitality, promote pulp tissue healing and tertiary dentin formation, and minimize bacterial microleakage. Adverse post-treatment clinical signs or symptoms such as sensitivity, pain, or swelling should not occur.

#### *Indirect Pulp Treatment*

Indirect pulp treatment is a procedure performed in a tooth with a deep carious lesion approximating the pulp but without signs or symptoms of pulp degeneration. The caries surrounding the pulp is left in place to avoid pulp exposure and is covered with a biocompatible material. A radiopaque liner such as a dentin bonding agent, resin modified glass ionomer, calcium hydroxide, zinc oxide/eugenol, or glass ionomer cement is placed over the remaining carious dentin to stimulate healing and repair. If calcium hydroxide is used, a glass ionomer or reinforced zinc oxide/eugenol material should be placed over it to provide a seal against microleakage since calcium hydroxide has a high solubility, poor seal, and low compressive strength. The tooth then is restored with a material that seals the tooth from microleakage.

- **Indications:** Indirect pulp treatment is indicated in a primary tooth with no pulpitis or with reversible pulpitis when the deepest carious dentin is not removed to avoid a pulp exposure. The pulp is judged by clinical and radiographic criteria to be vital and able to heal from the carious insult.
- **Objectives:** The restorative material should seal completely the involved dentin from the oral environment. The tooth's vitality should be preserved. No post-treatment signs or symptoms such as sensitivity, pain, or swelling should be evident. There should be no radiographic evidence of pathologic external or internal root resorption or other pathologic changes. There should be no harm to the succedaneous tooth.

#### *Direct Pulp Capping*

When a pinpoint mechanical exposure of the pulp is encountered during cavity preparation or following a traumatic injury, a biocompatible radiopaque base such as a mineral trioxide aggregate (MTA) or calcium hydroxide may be placed in contact with the exposed pulp tissue. The tooth is restored with a material that seals the tooth from microleakage.

- **Indications:** This procedure is indicated in a primary tooth with a normal pulp following a small mechanical or traumatic exposure when conditions for a favorable response are optimal. Direct pulp capping of a carious pulp exposure in a primary tooth is not recommended.
- **Objectives:** The tooth's vitality should be maintained. No post-treatment signs or symptoms such as sensitivity, pain, or swelling should be evident. Pulp healing and reparative dentin formation should result. There should be no radiographic signs of pathologic external or internal root resorption or furcation/apical radiolucency. There should be no harm to the succedaneous tooth.

#### *Pulpotomy*

A pulpotomy is performed in a primary tooth with extensive caries but without evidence of radicular pathology when caries removal results in a carious or mechanical pulp exposure. The coronal pulp is amputated, and the remaining vital radicular pulp tissue surface is treated with a long-term clinically successful medicament such as Buckley's Solution of formocresol or ferric sulfate. After the coronal pulp chamber is filled with a suitable base, the tooth is restored with a restoration that seals the tooth from microleakage.

- Indications: The pulpotomy procedure is indicated when caries removal results in pulp exposure in a primary tooth with a normal pulp or reversible pulpitis or after a traumatic pulp exposure. The coronal tissue is amputated, and the remaining radicular tissue is judged to be vital without suppuration, purulence, necrosis, or excessive hemorrhage that cannot be controlled by a damp cotton pellet after several minutes, and there are no radiographic signs of infection or pathologic resorption.
- Objectives: The radicular pulp should remain asymptomatic without adverse clinical signs or symptoms such as sensitivity, pain, or swelling. There should be no postoperative radiographic evidence of pathologic external or internal root resorption. Internal root resorption can be self limiting and stable. The clinician should monitor the internal resorption, removing the affected tooth if perforation causes loss of supportive bone and/or clinical signs of infection and inflammation. There should be no harm to the succedaneous tooth.

### **Nonvital Pulp Treatment for Primary Teeth Diagnosed with Irreversible Pulpitis or Necrotic Pulp**

#### *Pulpectomy*

Pulpectomy is a root canal procedure for pulp tissue that is irreversibly infected or necrotic due to caries or trauma. The root canals are debrided and shaped with hand or rotary files. Disinfection with irrigants such as 1% sodium hypochlorite and/or chlorhexidine is an important step in assuring optimal bacterial decontamination of the canals. After the canals are dried, a resorbable material such as nonreinforced zinc/oxide-eugenol, iodoform-based paste (KRI), or a combination paste of iodoform and calcium hydroxide (Vitapex®, Endoflax®) is used to fill the canals. The tooth then is restored with a restoration that seals the tooth from microleakage.

- Indications: A pulpectomy is indicated in a primary tooth with irreversible pulpitis or necrosis or a tooth treatment planned for pulpotomy in which the radicular pulp exhibits clinical signs of irreversible pulpitis (e.g., excessive hemorrhage that is not controlled with a damp cotton pellet applied for several minutes) or pulp necrosis (e.g., suppuration, purulence). The roots should exhibit minimal or no resorption.
- Objectives: Following treatment, the radiographic infectious process should resolve in 6 months, as evidenced by bone deposition in the pretreatment radiolucent areas, and pretreatment clinical signs and symptoms should resolve within a few weeks. There should be radiographic evidence of successful filling without gross overextension or underfilling. The treatment should permit resorption of primary tooth root structures and filling materials at the appropriate time to permit normal eruption of the succedaneous tooth. There should be no pathologic root resorption or furcation/apical radiolucency.

### **Young Permanent Teeth**

#### **Vital Pulp Therapy for Teeth Diagnosed with a Normal Pulp or Reversible Pulpitis**

##### *Protective Liner*



A protective liner is a thinly-applied liquid placed on the pulpal surface of a deep cavity preparation, covering exposed dentin tubules, to act as a protective barrier between the restorative material or cement and the tooth's pulp. Placement of a thin protective liner such as calcium hydroxide, dentin bonding agent, or glass ionomer cement is at the discretion of the clinician. The liner must be followed by a well-sealed restoration to minimize bacterial leakage from the restoration-dentin interface.

- Indications: In a tooth with a normal pulp, when caries is removed for a restoration, a protective liner may be placed in the deep areas of the preparation to minimize pulp injury, promote pulp tissue healing, and/or minimize postoperative sensitivity.
- Objectives: The placement of a liner in a deep area of the preparation is utilized to preserve the tooth's vitality, promote pulp tissue healing, and facilitate tertiary dentin formation. This liner must be followed by a well-sealed restoration to minimize bacterial leakage from the restoration-dentin interface. Adverse post-treatment signs or symptoms such as sensitivity, pain, or swelling should not occur.

#### *Indirect Pulp Treatment*

Indirect pulp treatment is a procedure performed in a tooth with a diagnosis of reversible pulpitis and deep caries that might otherwise need endodontic therapy if the decay was completely removed. The stepwise excavation of deep caries involves a 2-step process. The first step is the removal of carious dentin along the dentin-enamel junction (DEJ) and excavation of only the outermost infected dentin, leaving a carious mass over the pulp. The second step is the removal of the remaining caries and placement of a final restoration. The most common recommendation for the interval between steps is 3 to 6 months, allowing sufficient time for the formation of tertiary dentin and a definitive pulpal diagnosis. Critical to both steps of excavation is the placement of a well-sealed restoration.

- Indications: Indirect pulp treatment is indicated in a permanent tooth diagnosed with a normal pulp with no symptoms of pulpitis or with a diagnosis of reversible pulpitis. The pulp is judged by clinical and radiographic criteria to be vital and able to heal from the carious insult.
- Objectives: The intermediate and/or final restoration should seal completely the involved dentin from the oral environment. The vitality of the tooth should be preserved. No post-treatment signs or symptoms such as sensitivity, pain, or swelling should be evident. There should be no radiographic evidence of internal or external root resorption or other pathologic changes. Teeth with immature roots should show continued root development and apexogenesis.

#### *Partial Pulpotomy for Carious Exposures*

The partial pulpotomy for carious exposures is a procedure in which the inflamed pulp tissue beneath an exposure is removed to a depth of 1 to 3 mm or deeper to reach healthy pulp tissue. Pulpal bleeding must be controlled by irrigation with a bacteriocidal agent such as sodium hypochlorite or chlorhexidine before the site is covered with calcium hydroxide or MTA. A restoration that seals the tooth from microleakage is placed.

- Indications: A partial pulpotomy is indicated in a young permanent tooth for a carious pulp exposure in which the pulpal bleeding is controlled within several minutes. The tooth must be vital, with a diagnosis of normal pulp or reversible pulpitis.
- Objectives: The remaining pulp should continue to be vital after partial pulpotomy. There should be no adverse clinical signs or symptoms such as sensitivity, pain, or swelling. There should be no radiographic sign of internal or external resorption, abnormal canal calcification, or periapical radiolucency postoperatively. Teeth having immature roots should continue normal root development and apexogenesis.

#### *Partial Pulpotomy for Traumatic Exposures (Cvek Pulpotomy)*

The partial pulpotomy for traumatic exposures is a procedure in which the inflamed pulp tissue beneath an exposure is removed to a depth of 1 to 3 mm to reach the deeper healthy tissue. Pulpal bleeding is controlled using bacteriocidal irrigants such as sodium hypochlorite or chlorhexidine, and the site then is covered with calcium hydroxide or MTA. White, rather than gray, MTA is recommended in anterior teeth to decrease the chance of discoloration. MTA (at least 1.5 mm thick) should cover the exposure and surrounding dentin, followed by a layer of light-cured resin-modified glass ionomer. A restoration that seals the tooth from microleakage is placed.

- Indications: This pulpotomy is indicated for a vital, traumatically exposed, young permanent tooth, especially one with an incompletely formed apex. Pulpal bleeding after removal of inflamed pulpal tissue must be controlled. Neither the time between the accident and treatment nor size of exposure is critical if the inflamed superficial pulp tissue is amputated to healthy pulp.
- Objectives: The remaining pulp should continue to be vital after partial pulpotomy. There should be no adverse clinical signs or symptoms of sensitivity, pain, or swelling. There should be no radiographic sign of internal or external resorption, abnormal canal calcification, or periapical radiolucency postoperatively. Teeth having immature roots should show continued normal root development and apexogenesis.

#### *Apexogenesis (Root Formation)*

Apexogenesis is a histological term used to describe the continued physiologic development and formation of the root's apex. Formation of the apex in vital, young, permanent teeth can be accomplished by implementing the appropriate vital pulp therapy previously described in this section (i.e., indirect pulp treatment, partial pulpotomy for carious exposures and traumatic exposures).

### **Nonvital Pulp Treatment**

#### *Pulpectomy (Conventional Root Canal Treatment)*

Pulpectomy in apexified permanent teeth is conventional root canal (endodontic) treatment for exposed, infected, and/or necrotic teeth to eliminate pulpal and periradicular infection. In all cases, the entire roof of the pulp chamber is removed to gain access to the canals and eliminate all coronal pulp tissue. Following debridement, disinfection, and shaping of the root canal system, obturation of

the entire root canal is accomplished with a biologically acceptable, nonresorbable filling material. Obturation as close as possible to the cementodentinal junction should be accomplished with gutta percha or other filling material acceptable as described in the *Guide to Clinical Endodontics*.

- Indications: Pulpectomy or conventional root canal treatment is indicated for a restorable permanent tooth with irreversible pulpitis or a necrotic pulp in which the root is apexified. For root canal-treated teeth with unresolved periradicular lesions, root canals that are not accessible from the conventional coronal approach, or calcification of the root canal space, endodontic treatment of a more specialized nature may be indicated.
- Objectives: There should be evidence of a successful filling without gross overextension or underfilling in the presence of a patent canal. There should be no adverse post-treatment signs or symptoms such as prolonged sensitivity, pain, or swelling, and there should be evidence of resolution of pretreatment pathology with no further breakdown of periradicular supporting tissues clinically or radiographically.

#### *Apexification (Root End Closure)*

Apexification is a method of inducing root end closure of an incompletely formed nonvital permanent tooth by removing the coronal and nonvital radicular tissue just short of the root end and placing in the canal a suitable biocompatible agent such as calcium hydroxide in the canals for 2 to 4 weeks to disinfect the canal space. Root end closure is accomplished with an apical barrier such as MTA. In instances when complete closure cannot be accomplished by MTA, an absorbable collagen wound dressing (e.g., Colla-Cote®) can be placed at the root end to allow MTA to be packed within the confines of the canal space. Gutta percha is used to fill the remaining canal space. If the canal walls are thin, the canal space can be filled with MTA or composite resin instead of gutta percha to strengthen the tooth against fracture.

- Indications: This procedure is indicated for nonvital permanent teeth with incompletely formed roots.
- Objectives: This procedure should induce root end closure (apexification) at the apices of immature roots or result in an apical barrier as confirmed by clinical and radiographic evaluation. Adverse post-treatment clinical signs or symptoms of sensitivity, pain, or swelling should not be evident. There should be no radiographic evidence of external root resorption, lateral root pathosis, root fracture, or breakdown of periradicular supporting tissues during or following therapy. The tooth should continue to erupt, and the alveolus should continue to grow in conjunction with the adjacent teeth.

#### **CLINICAL ALGORITHM(S)**

None provided

### **EVIDENCE SUPPORTING THE RECOMMENDATIONS**

#### **TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

All oral health policies and clinical guidelines are based on 2 sources of evidence: (1) the scientific literature; and (2) experts in the field.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Appropriate use of pulp therapy for primary and immature permanent teeth
- Maintenance of the integrity and health of the teeth and their supporting tissues
- Maintenance of the vitality of the pulp of teeth affected by caries, traumatic injury, or other causes

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

This guideline is intended to recommend the best currently-available clinical care for pulp treatment, but the American Academy of Pediatric Dentistry (AAPD) encourages additional research for consistently successful and predictable techniques using biologically-compatible medicaments for vital and nonvital primary and immature permanent teeth.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms  
Resources

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### **BIBLIOGRAPHIC SOURCE(S)**

American Academy of Pediatric Dentistry (AAPD). Guideline on pulp therapy for primary and immature permanent teeth. Chicago (IL): American Academy of Pediatric Dentistry (AAPD); 2009. 8 p. [107 references]

### **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

### **DATE RELEASED**

2004 (revised 2009)

### **GUIDELINE DEVELOPER(S)**

American Academy of Pediatric Dentistry - Professional Association

### **SOURCE(S) OF FUNDING**

American Academy of Pediatric Dentistry

### **GUIDELINE COMMITTEE**

Clinical Affairs Committee - Pulp Therapy Subcommittee

### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

Not stated

### **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Council members and consultants derive no financial compensation from the American Academy of Pediatric Dentistry (AAPD) for their participation and are asked to disclose potential conflicts of interest. No conflicts were identified.

### **GUIDELINE STATUS**

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Pediatric Dentistry. Guideline on pulp therapy for primary and young permanent teeth. Chicago (IL): American Academy of Pediatric Dentistry; 2004. 5 p. [28 references]

### **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [American Academy of Pediatric Dentistry Web site](#).

Print copies: Available from the American Academy of Pediatric Dentistry, 211 East Chicago Avenue, Suite 700, Chicago, Illinois 60611

## **AVAILABILITY OF COMPANION DOCUMENTS**

Information about the American Academy of Pediatric Dentistry (AAPD) mission and guideline development process is available on the [AAPD Web site](#).

The following implementation tools are available for download from the AAPD Web site:

- [Dental growth and development chart](#)
- [American Academy of Pediatric Dentistry Caries-Risk Assessment Tool \(CAT\)](#)

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was completed by ECRI on March 16, 2005. The information was verified by the guideline developer on April 18, 2005. This NGC summary was updated by ECRI Institute on February 22, 2010. The updated information was verified by the guideline developer on March 22, 2010.

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